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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/697,858	10/27/2000	Alfred R. DeAngelis	5048	6761

7590 07/15/2005

Milliken & Company
P. O. Box 1927
Spartanburg, SC 29304

EXAMINER

BEFUMO, JENNA LEIGH

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 07/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/697,858

Applicant(s)

DEANGELIS ET AL.

Examiner

Jenna-Leigh Befumo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The Amendment submitted on April 26, 2005, has been entered. Claims 1, 4, and 5 have been amended. Therefore, the pending claims are 1 – 9.
2. The amendment is sufficient to overcome the 35 USC 102 rejection to claims 1 – 3 and 6 since Gould (4,061,827) fails to explicitly teach the claimed resistance. However, a new rejection based on Gould is set forth below.

Drawings

3. The drawings were received on March 22, 2005. These drawings along with the amendments to the specification overcome the objections set forth in the previous Office Action.

Double Patenting

4. Claims 1 – 8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9 – 31 of copending Application No. 10/424,120 for the reasons of record.
5. Claims 1 – 8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 – 12 of U.S. Patent No. 6,720,539 for the reasons of record.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1 – 9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the

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specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The disclosure fails to teach what procedure is used to measure the resistance of the conductive yarns. What are the conditions of the test such as temperature and pressure? Without knowing how the resistance is measured one of ordinary skill in the art cannot directly compare the resistance of other yarns to the resistance disclosed by the applicant.

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould.

The features of Gould have been set forth in the previous Office Action. While Gould teaches conductive sheath/core fibers with conductive particles mixed in the sheath portion of the fiber, Gould fails to teach the resistance range claimed by the Applicant. However, Gould discloses that the fibers and fabrics produced by the invention can have various resistance in the examples. In fact, the fabric square produced in Example 1 has a resistance value of 446 ohms per square at room temperature, while the fibers in Example 2 have a resistance of 5.5×10^6 ohms/cm at room temperature. Thus, the resistance of the fiber and fabrics can be controlled or optimized. The resistance of the fibers and fabrics would be dependent on the conductivity of the polymer material as well as the amount of conductive particles in the fibers. Hence, the more conductive particles and material in the fiber, the lower the overall resistance. Further, Gould discloses that the fibers can be used in heaters where the amount of conductive particles directly controls the maximum heat output of the heater itself (column 1, lines 65 – 68). Therefore, it would have been obvious to one having ordinary skill in the art to optimize the resistance of the

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fibers by controlling the amount of conductive material in the fibers. One of ordinary skill in the art would have been motivated to choose the claimed resistance value for fibers which are used in materials and fabrics where a high conductivity is needed in the final product. Thus, claims 1- 9 are rejected.

Response to Arguments

10. Applicant's arguments filed March 22, 2005 have been fully considered but they are not persuasive. In response to the applicant's arguments that the resistance of the fibers taught by Gould is dramatically different from the resistance of the fibers taught by the applicant (response, pages 5 – 6), it is noted that the resistance is based on the type of materials in the fiber and the amount of conductive particles added to the fiber. These factors can be controlled and manipulative without teaching away from the invention disclosed by Gould. In fact, the resistance values disclosed in Example 2 are just a single example of fibers that can be made by the method of Gould. The others examples have drastically different resistance values as well. Further, Gould teaches that the amount of conductive carbon can be controlled to control the heat output of the final product. Thus, Gould suggests controlling the resistance of the fiber and that one of ordinary skill in the art could choose resistance values based on the desired end product. Therefore, the rejection is maintained.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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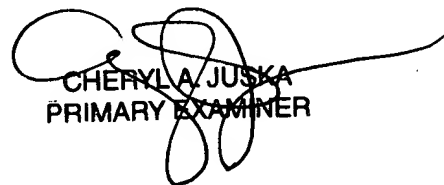
MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (571) 272-1472. The examiner can normally be reached on Monday - Friday (8:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jenna-Leigh Befumo
July 6, 2005



CHERYL A. JUSKA
PRIMARY EXAMINER